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REFERENCES

Alderson, A. (1999). A triumph of lateral thought. *Chemistry and Industry*, 10(May):384–391.

Allen, T., Martinello, N., Zampieri, D., Hewage, T., Senior, T., Foster, L., and Alderson, A. (2015). Auxetic foams for sport safety applications. *Procedia Engineering*, 112(0):104–109.

American Association of Neurological Surgeons (2014). Sports-related head injury.

Babbs, C. F. (2001). Biomechanics of heading a soccer ball: implications for player safety. *The Scientific World Journal*, 1:281–322.

Baghaei, S. M., Sadegh, A. M., and Rajaai, S. M. (2009). A Mathematical Head/Brain Model for Investigation of Damping Characteristics of SAS in Low Velocity Head Impacts.

Bamac, B., Tamer, G. S., Colak, T., Colak, E., Seyrek, E., Duman, C., Colak, S., and Ozbek, A. (2011). Effects of Repeatedly Heading a Soccer Ball on Serum Levels of Two Neurotrophic Factors of Brain Tissue, Bdnf and Ngf, in Professional Soccer Players. *Biology of Sport*, 28(3):177–181.

Bandak, F. a. (1995). On the mechanics of impact neurotrauma: a review and critical synthesis. *Journal of Neurotrauma*, 12(4):635–49.

Bandak, F. a. (1997). Impact Traumatic Brain Injuries: A Mechanical Perspective. In *Neurotraumatology: Biomechanic Aspects, Cytologic and Molecular Mechanisms*, pages 58–83.

Bayly, P. V., Clayton, E. H., Feng, Y., Abney, T., Namani, R., Okamoto, R. J., and Genin, G. M. (2013). *Measurement of Brain Biomechanics in vivo by Magnetic Resonance Imaging*, pages 117–128. Springer New York, New York, NY.

Bayly, P. V., Naunheim, R., Standeven, J., Neubauer, J. S., Lewis, L., and Genin, G. M. (2002). Linear and angular accelerations of the human head during heading of a soccer ball. *Engineering in Medicine and Biology, 2002. 24th Annual Conference and the Annual Fall Meeting of the Biomedical Engineering Society EMBS/BMES Conference, 2002. Proceedings of the Second Joint*, 3:2577–2578 vol.3.

Broglio, S. P., Ju, Y.-Y., Broglio, M. D., and Sell, T. C. (2003). The Efficacy of Soccer Headgear. *Journal of Athletic Training*, 38(3):220–224.

Camarillo, D. B., Shull, P. B., Mattson, J., Shultz, R., and Garza, D. (2013). An instrumented mouthguard for measuring linear and angular head impact kinematics in American football. *Ann Biomed Eng*, 41(9):1939–1949.

Chafi, M. S., Dirisala, V., Karami, G., and Ziejewski, M. (2009). A finite element method parametric study of the dynamic response of the human brain with different cerebrospinal fluid constitutive properties. *Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine*, 223(8):1003–1019.

Chen, P. Y. Y., Chou, L. S. S., Hu, C. J. J., and Chen, H. H. H. (2015). Finite Element Simulations of Brain Responses to Soccer-Heading Impacts. In Su, F.-C., Wang, S.-H., and Yeh, M.-L., editors, *1st Global Conference on Biomedical Engineering & 9th Asian-Pacific Conference on Medical and Biological Engineering SE - 33*, volume 47 of *IFMBE Proceedings*, pages 118–119. Springer International Publishing, Cham.

Chen, Y. and Ostoja-Starzewski, M. (2010). MRI-based finite element modeling of head trauma: spherically focusing shear waves. *Acta Mechanica*, 213(1-2):155–167.

Chrisman, S. P., Mac Donald, C. L., Friedman, S., Andre, J., Rowhani-Rahbar, A., Drescher, S., Stein, E., Holm, M., Evans, N., Poliakov, A. V., Ching, R. P., Schwien, C. C., Vavilal, M. S., and Rivara, F. P. (2016). Head impact exposure during a weekend youth soccer tournament. *J Child Neurol*.

Christou, G. A. (2010). *Development of a Helmet Liner for Protection Against Blast Induced Trauma*. PhD thesis, Massachusetts Institute of Technology.

Claessens, M. (1997). *Finite Element Modeling of the Human Head under Impact Conditions*. PhD thesis, Eindhoven University of Technology.

Cloots, R. J. H., van Dommelen, J. a. W., Kleiven, S., and Geers, M. G. D. (2013). Multi-scale mechanics of traumatic brain injury: predicting axonal strains from head loads. *Biomechanics and Modeling in Mechanobiology*, 12(1):137–150.

Covassin, T., Elbin, R. J., Harris, W., Parker, T., and Kontos, A. (2012). The Role of Age and Sex in Symptoms, Neurocognitive Performance, and Postural Stability in Athletes After Concussion. *American Journal of Sports Medicine*, 40(6):1303–1312.

Covassin, T., Swanik, C. B., and Sachs, M. L. (2003). Epidemiological considerations of concussions among intercollegiate athletes. *Applied Neuropsychology*, 10(1):12–22.

Dassault Systèmes (2013). Abaqus 6.13 Documentation.

Delaney, J. S. (2004). Head Injuries Presenting to Emergency Departments in the United States From 1990 to 1999 for Ice Hockey, Soccer, and Football. *Clinical Journal of Sport Medicine*, 14(2).

Delaney, J. S., Al-Kashmiri, A., Drummond, R., and Correa, J. A. (2008). The effect of protective headgear on head injuries and concussions in adolescent football (soccer) players. *British Journal of Sports Medicine*, 42(October 2006):110–115; discussion 115.

Delaney, J. S., Lacroix, V. J., Leclerc, S., and Johnston, K. M. (2002). Concussions among university football and soccer players. *Clinical Journal of Sport Medicine*, 12(6):331–338.

Dirisala, V., Karami, G., and Ziejewski, M. (2012). Effects of neck damping properties on brain response under impact loading. *International Journal for Numerical Methods in Biomedical Engineering*, 28(November 2011):472–494.

Elbin, R. J., Beatty, A., Covassin, T., Schatz, P., Hydeman, A., and Kontos, A. P. (2015). A Preliminary Examination of Neurocognitive Performance and Symptoms Following a Bout of Soccer Heading in Athletes Wearing Protective Soccer Headbands. *Research in Sports Medicine: An International Journal*, pages 1–12.

Faul, M., Xu, L., Wald, M., and Coronado, V. (2010). Traumatic Brain Injury in the United States. Technical report, Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Atlanta (GA).

FIFA.com (2006). Big Count - FIFA.com.

Forde, C. T., Karri, S. K., Young, A. M. H., and Ogilvy, C. S. (2014). Predictive markers in traumatic brain injury: opportunities for a serum biosignature. *British Journal of Neurosurgery*, 28(1):8–15.

Funk, J. R., Cormier, J. M., Bain, C. E., Guzman, H., and Bonugli, E. (2009). Validation and application of a methodology to calculate head accelerations and neck loading in soccer ball impacts. *SAE Technical Paper*, 01(0251).

Funk, J. R., Cormier, J. M., Bain, C. E., Guzman, H., Bonugli, E., and Manoogian, S. J. (2011). Head and Neck Loading in Everyday and Vigorous Activities. *Annals of Biomedical Engineering*, 39(2):766–776.

Gessel, L. M., Fields, S. K., Collins, C. L., Dick, R. W., and Comstock, R. D. (2007). Concussions among United States high school and collegiate athletes. *J Athl Train*, 42(4):495–503.

Gilchrist, J. and Thomas, K. (2007). Nonfatal Traumatic Brain Injuries from Sports and Recreation Activities United States. *Morbidity and Mortality Weekly Report*, 56(29):733–738.

Goel, R. (2011). *Study of an advanced helmet liner concept to reduce TBI: experiments & simulation using sandwich structures*. PhD thesis, Massachusetts Institute of Technology.

Goodwill, S. R., Kirk, R., and Haake, S. J. (2005). Experimental and finite element analysis of a tennis ball impact on a rigid surface. *Sports Engineering*, 8(3):145–158.

Graham, R., Rivara, F. P., Ford, M. A., and Spicer, C. M. (2014). *Sports-Related Concussions in Youth:: Improving the Science, Changing the Culture*. National Academies Press.

Granacher, R. P. (2003). *Traumatic brain injury : methods for clinical and forensic neuropsychiatric assessment*. CRC Press.

Gurdjian, E., Hardy, W., Patrick, L., Evans, F., and Lissner, H. (1961). Intracranial pressure and acceleration accompanying head impacts in human cadavers. *Surgery, Gynecology and Obstetrics*, 113:185–190.

Guskiewicz, K. M., Marshall, S. W., Broglio, S. P., Cantu, R. C., and Kirkendall, D. T. (2002). No evidence of impaired neurocognitive performance in collegiate soccer players. *The American Journal of Sports Medicine*, 30(2):157–162.

Gutierrez, G. M., Conte, C., and Lightbourne, K. (2014). The relationship between impact force, neck strength, and neurocognitive performance in soccer heading in adolescent females. *Pediatric Exercise Science*, 26(1):33–40.

Hanlon, E. and Bir, C. (2010). Validation of a wireless head acceleration measurement system for use in soccer play. *Journal of Applied Biomechanics*, 26(4):424–431.

Hardy, C. H. and Marcal, P. V. (1973). Elastic Analysis of a Skull. *Journal of Applied Mechanics*, 40(4):838–842.

Hardy, W. N. (2007). *Response to the Human Cadaver Head to Impact*. PhD thesis, Wayne State University.

Hibbeler, R. C. (2009). *Engineering Mechanics: Dynamics in SI Units Pack*. Prentice Hall.

Hootman, J. M., Dick, R., and Agel, J. (2007). Epidemiology of collegiate injuries for 15 sports: Summary and recommendations for injury prevention initiatives. *Journal of Athletic Training*, 42(2):311–319.

Horgan, T. J. and Gilchrist, M. D. (2003). The creation of three-dimensional finite element models for simulating head impact biomechanics. *International Journal of Crashworthiness*, 8(4):353–366.

Horsey, R. R. and Liu, Y. K. (1981). A homeomorphic finite element model of the human head and neck. In *Finite Elements in Biomechanics*, pages 379–401.

Ishii, H., Sakurai, Y., and Maruyama, T. (2014). Effect of soccer shoe upper on ball behaviour in curve kicks. *Scientific Reports*, 4:6067.

Iskandar (2013). *Modeling and analysis of impact of sepak takraw ball on the player's head*. PhD thesis, University of Malaya.

Ji, S., Zhao, W., Li, Z., and McAllister, T. W. (2014). Head impact accelerations for brain strain-related responses in contact sports: a model-based investigation. *Biomechanics and Modeling in Mechanobiology*, 13(5):1121–1136.

Jordan, S. E., Green, G. A., Galanty, H. L., Mandelbaum, B. R., and Jabour, B. A. (1996). Acute and chronic brain injury in United States National Team soccer players. *American Journal of Sports Medicine*, 24(2):205–210.

Joy, J. E. and Patlak, M. (2002). *Is Soccer Bad for Children's Heads? - Summary of the IOM Workshop on Neuropsychological Consequences of Head Impact in Youth Soccer*. National Academies Press.

Kelly, K. D., Lissel, H. L., Rowe, B. H., Vincenten, J. a., and Voaklander, D. C. (2001). Sport and recreation-related head injuries treated in the emergency department. *Clinical Journal of Sport Medicine : Official Journal of the Canadian Academy of Sport Medicine*, 11(2):77–81.

Khalil, T. B. and Hubbard, R. P. (1977). Parametric study of head response by finite element modeling. *Journal of Biomechanics*, 10(2):119–132.

King, A. I., Yang, K. H., Zhang, L., and Hardy, W. (2003). Is Head Injury Caused By Linear Or Angular Acceleration. In *IRCOBI Conference*, number September, pages 1–12.

Kleiven, S. (2006). Evaluation of head injury criteria using a finite element model validated against experiments on localized brain motion, intracerebral acceleration, and intracranial pressure. *International Journal of Crashworthiness*, 11(1):65–79.

Kleiven, S. and Hardy, W. N. (2002). Correlation of an FE Model of the Human Head with Local Brain Motion Consequences for Injury Prediction. *Stapp Car Crash Journal*, 46(November 2202):123–144.

Knutsen, A. K., Magrath, E., McEntee, J. E., Xing, F., Prince, J. L., Bayly, P. V., Butman, J. A., and Pham, D. L. (2014). Improved measurement of brain deformation during mild head acceleration using a novel tagged MRI sequence. *Journal of Biomechanics*, 47(14):3475–3481.

Koerte, I. K. and Ertl-Wagner, B. (2012). White matter integrity in the brains of professional soccer players without a symptomatic concussion. *JAMA: The Journal of the American Medical Association*, 308(18):2006–2008.

Lehner, S. (2007). *Entwicklung und Validierung biomechanischer Computermodelle und deren Einsatz in der Sportwissenschaft*. PhD thesis, Universität Koblenz-Landau.

Lehner, S., Wallrapp, O., and Senner, V. (2010). Use of headgear in football A computer simulation of the human head and neck. *Procedia Engineering*, 2(2):3263–3268.

Lipton, M. L., Kim, N., and Zimmerman, M. E. (2013). Soccer Heading Is Associated with White Matter Microstructural and Cognitive Abnormalities. *Radiology*, 268(3).

Lissner, H. R., Lebow, M., and Evans, F. G. (1960). Experimental studies on the relation between acceleration and intracranial pressure changes in man. *Surgery, Gynecology and Obstetrics*, 111:329.

Lynch, P. J. (2008). A diagram of the forces on the brain in a coup-contrecoup injury.

Marar, M., McIlvain, N. M., Fields, S. K., and Comstock, R. D. (2012). Epidemiology of Concussions Among United States High School Athletes in 20 Sports. *The American Journal of Sports Medicine*, 40(4):747–755.

Marques, S. P. C. and Creus, G. J. (2012). Solution with Abaqus. In *Computational Viscoelasticity*, SpringerBriefs in Applied Sciences and Technology, pages 103–111. Springer Berlin Heidelberg, Berlin, Heidelberg.

Matser, E. J. T., Kessels, A. G., Lezak, M. D., Jordan, B. D., and Troost, J. (1999). Neuropsychological Impairment in Amateur Soccer Players. *JAMA: The Journal of the American Medical Association*, 282(10):971–973.

Matser, J. T., Kessels, a. G., Lezak, M. D., and Troost, J. (2001). A dose-response relation of headers and concussions with cognitive impairment in professional soccer players. *Journal of Clinical and Experimental Neuropsychology*, 23(6):770–774.

Matser, J. T., Kessels, A. G. H., Jordan, B. D., Lezak, M. D., and Troost, J. (1998). Chronic traumatic brain injury in professional soccer players. *Neurology*, 51(3):791–796.

Mckee, A. C. and Daneshvar, D. H. (2015). The neuropathology of traumatic brain injury. *Handbook of Clinical Neurology*, 127:45–66.

Miller, R. T., Margulies, S. S., Leoni, M., Nonaka, M., Chen, X., Smith, D. H., and Meaney, D. F. (1998). Finite Element Modeling Approaches for Predicting Injury in an Experimental Model of Severe Diffuse Axonal Injury.

Mussack, T., Dvorak, J., Graf-Baumann, T., and Jochum, M. (2003). Serum S-100B protein levels in young amateur soccer players after controlled heading and normal exercise. *European Journal of Medical Research*, 8(10):457–464.

Nagurka, M. and Huang, S. (2004). A Mass-Spring-Damper Model of a Bouncing Ball. *American Control Conference, 2004. Proceedings of the 2004.*, 1(3):499–504.

Nagurka, M. and Huang, S. (2006). A Mass-Spring-Damper Model of a Bouncing Ball. *International Journal of Engineering Education*, 22(2):9.

Nahum, A. M., Smith, R., and Ward, C. C. (1977). Intracranial Pressure Dynamics During Head Impact.

Nahum, A. M. and Smith, R. W. (1976). An Experimental Model for Closed Head Impact Injury.

Naunheim, R., Bayly, P., Standeven, J., Neubauer, J., Lewis, L., and Genin, G. (2003a). Linear and angular head accelerations during heading of a soccer ball. *Medicine and Science in Sports and Exercise*, 35(8):1406–1412.

Naunheim, R., Ryden, A., Standeven, J., Genin, G., Lewis, L., Thompson, P., and Bayly, P. (2003b). Does Soccer Headgear Attenuate the Impact When Heading a Soccer Ball? *Academic Emergency Medicine*, 10(1):85–90.

Newman, J. A. (1986). A Generalized Acceleration Model for Brain Injury Threshold (GAMBIT). In *Proceedings of the International Research Council on Biomechanics of Injury (IRCOBI) Conference*, pages 121–131.

Newman, J. A., Shewchenko, N., and Welbourne, E. (2000). A proposed new biomechanical head injury assessment function - the maximum power index. *Stapp Car Crash J*, 44(724):215–247.

Patrick, L. M., Lissner, H. R., and Gurdijan, E. S. (1965). Survival by Design-Head Protection. *SAE Paper No.963-12-0036, Proc. 7th Stapp Car Crash Conference*, pages 483–499.

Ponce, E., Ponce, D., and Andresen, M. (2014). Modeling Heading in Adult Soccer Players.

Price, D., Jones, R., and Harland, A. (2006a). Computational modelling of manually stitched soccer balls. *Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials Design and Applications*, 220(4):259–268.

Price, D., Jones, R., and Harland, A. (2006b). The Dependency of Hollow Ball Deformation on Material Properties. *2006 ABAQUS User's Conference*, pages 389–403.

Price, D., Jones, R., and Harland, A. (2007). Advanced finite-element modelling of a 32-panel soccer ball. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, 221(11):1309–1319.

Price, D., Jones, R., Harland, A., and Silberschmidt, V. (2008). Viscoelasticity of multilayer textile reinforced polymer composites used in soccer balls. *Journal of Materials Science*, 43(8):2833–2843.

Puvanachandra, P. and Hyder, A. a. (2009). The Burden of Traumatic Brain Injury in Asia : a Call for Research. *Pakistan Journal of Neurological Sciences*, 4(1):27–32.

Rezaei, A., Verhelst, R., Van Paepegem, W., and Degrieck, J. (2011). Finite element modelling and experimental study of oblique soccer ball bounce. *Journal of Sports Sciences*, 29(11):1201–1213.

Riches, P. E. (2006). A dynamic model of the head acceleration associated with heading a soccer ball. *Sports Engineering*, 9(1):39–47.

Ruan, J. S., Khalil, T., and King, A. I. (1994). Dynamic response of the human head to impact by three-dimensional finite element analysis. *Journal of Biomechanical Engineering*, 116(1):44–50.

Ruan, J. S., Khalil, T. B., and King, A. I. (1993). Finite element modeling of direct head impact. In *Stapp Car Crash Conference*.

Sanami, M., Ravirala, N., Alderson, K., and Alderson, A. (2014). Auxetic materials for sports applications. *Procedia Engineering*, 72:453–458.

Self, B., Beck, J., Schill, D., Eames, C., Knox, T., and Plaga, J. (2006). Head Accelerations During Soccer Heading. In *The Engineering of Sport 6 SE - 15*, pages 81–86. Springer New York.

Shewchenko, N., Withnall, C., Keown, M., Gittens, R., and Dvorak, J. (2005a). Heading in football. Part 1: development of biomechanical methods to investigate head response. *British Journal of Sports Medicine*, 39 Suppl 1:i10–25.

Shewchenko, N., Withnall, C., Keown, M., Gittens, R., and Dvorak, J. (2005b). Heading in football. Part 3: effect of ball properties on head response. *British Journal of Sports Medicine*, 39 Suppl 1:i33–9.

Shugar, T. A. (1975). Transient Structural Response of the Linear Skull-Brain System. *SAE Technical Paper 751161*.

Soccer Ball World (2005). The History of the Soccer Ball.

Song, S., Race, N. S., Kim, A., Zhang, T., Shi, R., and Ziaie, B. (2015). A Wireless Intracranial Brain Deformation Sensing System for Blast-Induced Traumatic Brain Injury. *Scientific Reports*, 5:16959.

Spiotta, A. M., Bartsch, A. J., and Benzel, E. C. (2012). Heading in Soccer: Dangerous Play? *Neurosurgery*, 70(1):1–11.

Stålnacke, B.-M., Ohlsson, A., Tegner, Y., and Sojka, P. (2006). Serum concentrations of two biochemical markers of brain tissue damage S-100B and neurone specific enolase are increased in elite female soccer players after a competitive game. *British Journal of Sports Medicine*, 40:313–316.

Stålnacke, B.-M., Tegner, Y., and Sojka, P. (2004). Playing soccer increases serum concentrations of the biochemical markers of brain damage S-100B and neuron-specific enolase in elite players: a pilot study. *Brain Injury*, 18(9):899–909.

Stamm, J. M., Koerte, I. K., Muehlmann, M., Pasternak, O., Bourlas, A. P., Baugh, C. M., Giwerc, M. Y., Zhu, A., Coleman, M. J., Bouix, S., Fritts, N. G., M, M. B., Chaisson, C., McClean, M. D., Lin, A. P., Cantu, R. C., Tripodis, Y., Stern, R. A., and Shenton, M. E. (2015). Age at First Exposure to Football is Associated with Altered Corpus Callosum White Matter Microstructure in Former Professional Football Players. *Journal of Neurotrauma*, 1776:1–37.

Tierney, R. T., Higgins, M., Caswell, S. V., Brady, J., McHardy, K., Driban, J. B., and Darvish, K. (2008). Sex differences in head acceleration during heading while wearing soccer headgear. *Journal of Athletic Training*, 43(6):578–584.

Tolman, S. S. (2014). *Elastic Energy Absorption via Compliant Corrugations*. PhD thesis, Brigham Young University.

Trosseille, X., Tarriére, C., Lavaste, F., Guillon, F., and Domont, A. (1992). Development of a F.E.M. of the Human Head According to a Specific Test Protocol.

Tysvaer, A. T. and Løchen, E. A. (1991). Soccer injuries to the brain: A neuropsychologic study of former soccer players. *The American Journal of Sports Medicine*, 19(1):56–60.

Tysvaer, A. T. and Storli, O. (1981). Association football injuries to the brain. A preliminary report. *British Journal of Sports Medicine*, 15(3):163–166.

van den Bosch, H. L. A. (2006). *Crash Helmet Testing and Design Specifications*. PhD thesis, Technische Universiteit Eindhoven.

Vechart, A. (2010). *Design of a Composite Combat Helmet Liner for Prevention of Blast-Induced Traumatic Brain Injury*. PhD thesis, Massachusetts Institute of Technology.

Vries, D. D. (2009). *Characterization of polymeric foams*. PhD thesis, Eindhoven University of Technology.

Wassenbergh, S. V. (2007). VBA Excel add-in utilities and worksheet templates.

Webbe, F. M. and Ochs, S. R. (2003). Recency and frequency of soccer heading interact to decrease neurocognitive performance. *Applied Neuropsychology*, 10(1):31–41.

Willinger, R., Taleb, L., and Kopp, C.-M. (1995). Modal and Temporal Analysis of Head Mathematical Models. *Journal of Neurotrauma*, 12(4):743–754.

Withnall, C., Shewchenko, N., Gittens, R., and Dvorak, J. (2005a). Biomechanical investigation of head impacts in football. *British Journal of Sports Medicine*, 39 Suppl 1:i49–57.

Withnall, C., Shewchenko, N., Wonnacott, M., and Dvorak, J. (2005b). Effectiveness of headgear in football. *British Journal of Sports Medicine*, 39 Suppl 1:i40–8; discussion i48.

Witol, A. D. and Webbe, F. M. (2003). Soccer heading frequency predicts neuropsychological deficits. *Archives of Clinical Neuropsychology : The Official Journal of the National Academy of Neuropsychologists*, 18(4):397–417.

Yang, B., Tse, K.-M., Chen, N., Tan, L.-B., Zheng, Q.-Q., Yang, H.-M., Hu, M., Pan, G., and Lee, H.-P. (2014). Development of a finite element head model for the study of impact head injury. *BioMed Research International*, 2014:1–14.

Yost, A. L. (2012). *Fluid-filled helmet liner concept for protection against blast-induced traumatic brain injury*. PhD thesis, Massachusetts Institute of Technology.

Zhang, L., Yang, K. H., and King, A. I. (2004). A Proposed Injury Threshold for Mild Traumatic Brain Injury. *Journal of Biomechanical Engineering*, 126(2):226–236.

Zhang, M. R., Red, S. D., Lin, A. H., Patel, S. S., and Sereno, A. B. (2013). Evidence of cognitive dysfunction after soccer playing with ball heading using a novel tablet-based approach. *PloS One*, 8(2):e57364–e57364.